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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/955,292 | 09/19/2001 | Yoshikatsu Kamisuwa | 016907/1297 | 8174 |

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EXAMINER

HUNTSINGER, PETER K

| ART UNIT | PAPER NUMBER |
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2625

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,292

Applicant(s)

KAMISUWA, YOSHIKATSU

Examiner

Peter K. Huntsinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 7-9 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-9 and 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/9/06 has been entered.

Response to Arguments

2. Applicant's arguments filed 5/9/06 have been fully considered but they are not persuasive.

The applicant argues on pages 8 and 9 of the response in essence that:

Itoyama et al. do not teach classifying the defective image of a pattern region from among the plurality of patterns expressed in the image data, based on the different types of the characteristic quantities sampled by the image analyzing section.

a. Itoyama et al. disclose classifying the defective image of a pattern region from among the plurality of patterns expressed in the image data (Fig. 21, col. 9, lines 10-46). Amero et al. disclose classifying based on different types of characteristic quantities sampled by the image analyzing section (step 300 of Fig. 4, col. 10, lines 11-14).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 11-14 recite the limitation "the other information". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5, 7-9, 11, and 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amero et al. Patent 6,504,625 and further in view of Itoyama et al. Patent 6,488,353.

Referring to claims 1 and 9, Amero et al. disclose an image analyzing device comprising: a storage section (memory 52 of Fig. 1, col. 5, lines 51-53) which stores image data obtained by processing reference chart data including a plurality of different patterns (col. 6, lines 26-41) for sampling a plurality of different characteristic quantities indicating characteristics of a defective image (col. 10, lines 21-34), by using a device

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targeted for checking (step 300 of Fig. 4, col. 10, lines 11-14); and an image analyzing section which samples a different types of characteristic quantity of the plurality of patterns (col. 10, lines 5-14) expressed in the image data stored in the storage section (col. 10, lines 21-27). Amero et al. do not disclose expressly a phenomenon name specifying section. Itoyama et al. disclose a phenomenon name specifying section which specifies a phenomenon name for classifying the defective image of a pattern region from among the plurality of patterns expressed in the image data (col. 9, lines 10-21). Amero et al. further disclose classifying based on different types of characteristic quantities sampled by the image analyzing section (step 300 of Fig. 4, col. 10, lines 11-14). Amero et al. and Itoyama et al. are combinable because they are from the same field of correcting printer defects. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to classify defect images by a phenomenon. The motivation for doing so would have been to determine the cause of the defect. Therefore, it would have been obvious to combine Itoyama et al. with Amero et al. to obtain the invention as specified in claims 1 and 9.

Referring to claim 2, Amero et al. disclose wherein the reference chart data is a print image (col. 6, lines 26-41), and the image data is electronic data obtained by reading the print image by an image scanner targeted for checking (step 300 of Fig. 4, col. 10, lines 11-14).

Referring to claim 3, Amero et al. disclose wherein the reference chart data is electronic data (col. 6, lines 26-41), and the image data is electronic data obtained by

further reading with an image scanner an image printed according to the electronic data by a printer targeted for checking (step 300 of Fig. 4, col. 10, lines 11-14).

Referring to claim 5 Amero et al. disclose wherein, with respect to the reference chart data, a plurality of known image patterns are disposed in a mesh manner, and the characteristic quantity sampling section uses processing suitable to sample characteristic quantities for each mesh (Fig. 3, col. 6, lines 26-41).

Referring to claim 7 Amero et al. disclose wherein the image analyzing device is provided in a personal computer (computer 20 of Fig. 1, col. 4, lines 36-48).

Referring to claim 8, Amero et al. disclose an image scanner which reads a document image and provides image data corresponding to the document image, wherein the storage section stores read data obtained by reading an arbitrary sample with the image scanner (scanner 40 of Fig. 1, col. 4, lines 42-45). Ohta disclose a pattern analyzing section which analyzes characteristics including a pattern configuration (density patches, col. 7, lines 8-12) of read data stored by a storage section and adds characteristics including the analyzed pattern configuration to the reference chart characteristic list (Fig. 4, col. 7, lines 21-26); and wherein the arbitrary image sample and the read data are used as new reference chart data (Fig. 4, col. 7, lines 21-26).

Referring to claim 11, Itoyama et al. disclose wherein the other information is an internal parameter of a device targeted for checking (col. 10, lines 47-57).

Referring to claim 13, Itoyama et al. disclose wherein the other information is input information from an operator (col. 9, lines 56-59). Itoyama further teaches that the

user determines whether the defect is caused by a needing to clean the print heads (col. 10, lines 14-18).

Referring to claim 14, Itoyama et al. disclose wherein the other information is information on past checking results (Fig. 13, col. 7, lines 47-55).

Referring to claim 15, Itoyama et al. disclose a communication section which transmits to the outside the phenomenon classified by an image analyzing section and the causes of defect estimated by the cause estimating section (display unit 10 of Fig. 1, col. 6, lines 55-60).

Referring to claim 16, Amero et al. disclose a scanner section which reads a document image and provides document image data corresponding to the document image (scanner 40 of Fig. 1, col. 4, lines 42-45); and a printer section which forms an image corresponding to the image data provided from the image scanner, wherein the image data is the document image data provided from the scanner section (printer 30 of Fig. 1, col. 4, lines 39-45).

Referring to claim 17, Amero et al. disclose a scanner section which reads a document image and provides document image data corresponding to the document image (scanner 40 of Fig. 1, col. 4, lines 42-45); and a printer section which forms an image corresponding to the image data provided from the image scanner, wherein the image data is document image data obtained by further reading with the scanner section the image formed by the printer section according to known reference data produced as electronic data, by use of the scanner section from the scanner section (printer 30 of Fig. 1, col. 4, lines 39-45).

Referring to claim 18, Amero et al. disclose wherein the image checking device is provided in a personal computer (computer 20 of Fig. 1, col. 4, lines 36-48).

Referring to claim 19, Amero et al. disclose wherein the image checking system is provided in a network controller connected to the device targeted for checking via network (computer 20 of Fig. 1, col. 4, lines 36-48). While Amero et al. do not disclose expressly a computer within a network, Official Notice is taken that it would have been obvious to connect a computer to a network. The motivation for doing so would have been to connect a computer to other computer and devices for transmitting data. A computer system is capable of monitoring and controlling a network, and is therefore capable of acting as a network controller.

Referring to claim 20, Amero et al. disclose wherein the image analyzing section is provided in a network controller connected to the device targeted for checking via network, and the cause estimating section is provided in a computer system connected to the network controller via communication network (col. 4, lines 56-61). While Amero et al. do not disclose expressly a computer within a network, Official Notice is taken that it would have been obvious to connect a computer to a network. The motivation for doing so would have been to connect a computer to other computer and devices for transmitting data. A computer system is capable of monitoring and controlling a network, and is therefore capable of acting as a network controller. Itoyama et al. disclose the cause estimating section is provided in a computer system (col. 4, lines 56-61).

Referring to claim 21, Amero et al. disclose wherein the image checking system is provided in a personal computer connected to the device targeted for checking via LAN (computer 20 of Fig. 1, col. 4, lines 36-48). Official Notice is taken that it would have been obvious to connect a computer to a scanner via a LAN. The motivation for doing so would have been to allow the device to be usable by a network of computers.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amero et al. Patent 6,504,625 and Itoyama et al. Patent 6,488,353 as applied to claim 9 above, and further in view of Allen et al. Publication US 2002/0180996.

Referring to claim 12, Itoyama discloses the cause estimating system but does not disclose expressly narrowing the cause of a defect according to the output of an internal sensor. Allen et al. disclose determining a defect based on an output value of a sensor (page 3, paragraph 32). Amero et al, Itoyama et al., and Allen et al. are combinable because they are from the same field of printing and scanning a test page. At the time of the invention, it would have been obvious to utilize a sensor in narrowing the cause of a defect. The motivation for doing so would have been to improve the accuracy of detecting a defect by determining the possible conditions that cause a certain defect. Therefore, it would have been obvious to combine Allen et al. with Amero et al. and Itoyama et al. to obtain the invention as specified in claim 12.

Conclusion

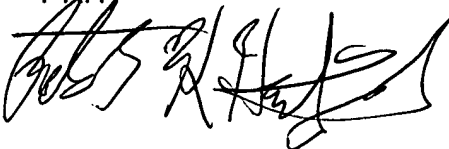
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (571)272-7435. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571)272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PKH



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